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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,538	06/13/2001	Yoshihiro Hashizume	200719US3PCT	4080

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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/719,538	Examiner	Art Unit
	FORD	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12-18-2000 (preliminary audit) + two IDS statements.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 12-30 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 12-30 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____.
 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)
 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7+8 20) Other: _____

The drawings are objected to because Figure 17 must be legended PRIOR ART (see specification, page 11, line 22). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Applicant has submitted three Japanese documents as prior art without any meaningful translation. JP '807 was apparently anticipatory as to original claims 1, 2, 9-11 and obvious as to claims 3-8. JP '811 was considered obvious as to claims 3-8 and finally JP '113 was considered anticipatory as to all of claims 1-11.

Applicant is strongly urged to provide meaningful translations of these documents, preferably complete translations. It is unlikely that the Abstracts will provide meaningful enough detail to permit intelligent comparison of the disclosure of the prior art to the claims presented here. Procuring complete translations of these three documents cited by applicant cannot possibly be construed as a financial hardship on a company the size of Mitsubishi Heavy Industries.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 13, 26, 27, 28, 29 and 30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Vonhausen or Stevenson or Meda.

Regarding claim 13, this is inherently true of Vonhausen and Stevenson.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 13, 26, 27, 28, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson as applied to claims 12, 13 and 26-30 above, and further in view of JP 6-270644.

JP '644 Figures 2, 3, 9 and 16 reveal that what applicant has discovered about the prior art air-mix damper (see applicant's Figure 17 and the description thereof) is well known. It also reveals that a linear output in temperature can be obtained by changing the rotation action between the actuator and the air mix door in the exact inverse ratio as the non-linearity in the temperature to rotation curve. Thus, mechanically, the rotation action is corrected for the non-linearity in the temperature versus valve opening curve, to produce a linear output of temperature as a function of actuator position.

While Stevenson uses non-linear gearing (60 and 66) to accomplish the above result, he mentions in col. 1, lines 27-29, that cams have been used in the past.

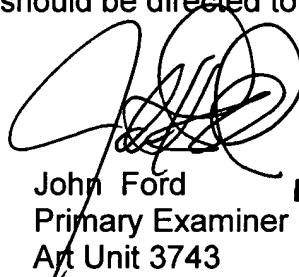
Claims 13-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 12, 13 and 26-30 above, and further in view of JP 58-81113 or Sakurai et al. '689 or Noguchi '980.

Each of these references (in the case of JP '113, the Examiner is admittedly speculating) teaches a cam plate used to change the rotational movement of the actuator in some non-linear manner into a rotation of the air-mix door.

To have used a cam plate (and actuator with a pin) suitably ground with a cam profile to produce a linear output temperature as a function of actuator rotation would have been obvious to one of ordinary skill to improve controllability.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



John K. Ford
Primary Examiner
Art Unit 3743

J. Ford/els

September 27, 2002